

60

NAVAL WAR COLLEGE
Newport, R.I.

**THE JOINT RESCUE TASK FORCE:
DEDICATED CSAR CAPABILITY FOR THE THEATER CINCs**

by

TIMOTHY R. MINISH

Major, USAF

A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature:

14 June 1996

**Paper directed by
David Watson, Captain, USN
Chairman, Joint Military Operations Department**

19960501237

60 Unclassified

Security Classification This Page

REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority:			
3. Declassification/Downgrading Schedule:			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT			
6. Office Symbol: C	7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207		
8. Title (Include Security Classification): The Joint Rescue Task Force: Dedicated CSAR for the Theater CINC (U)			
9. Personal Authors: Major Timothy R. Minish, USAF			
10. Type of Report: FINAL	11. Date of Report: 14 June 1996		
12. Page Count: 22			
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.			
14. Ten key words that relate to your paper: Joint, Task, Force, Dedicated, Combat, Search, Rescue, Command, Control, Coordination			
15. Abstract: Recovery of distressed US military personnel and civilians has emerged as a major concern to our warfighting CINCs. Historically, we have tended to field ad hoc combat search and rescue (CSAR) organizations - units without clear cut lines of authority resulting in command and control (C ²) structures with coordination authority only and operations of a unilateral service nature. Desert Storm was more of the same, the CSAR agency was without operational control of the aircraft flying the mission. Additionally, the CSAR units of the Air Force were not capable of performing their mission. This situation resulted in special operations forces serving in an overland CSAR role. Since Desert Storm, the leadership of the Air Force and Navy have made a conscious effort to recover the CSAR capability of the past. The Air Force and Navy CSAR (OVER)			
16. Distribution / Availability of Abstract:	Unclassified <input checked="" type="checkbox"/>	Same As Rpt	DTIC Users
17. Abstract Security Classification: UNCLASSIFIED			
18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19. Telephone: 841- ████████ 6461	20. Office Symbol: C		

Security Classification This Page Unclassified

15. (continued) units of the 1960s to mid 1980s have reemerged with the equipment, personnel, and training necessary to get the job done. However, a problem exists in employing this force. When requested, the theater CINCs will receive the same ad hoc organization of the past - the units will be capable but the doctrine will be of past times. This paper proposes a solution that will ensure an effective CSAR capability for the theater CINCs. The development of a Joint Rescue Task Force (not unlike the Joint Special Operations Task Force) will provide the CINCs with a stand alone CSAR force capable of operations independent of parent services, while streamlining and simplifying C², and ensuring unity of command within the CSAR community.



DEPARTMENT OF THE NAVY
NAVAL WAR COLLEGE
686 CUSHING RD
NEWPORT RHODE ISLAND 02841-1207

5 June 1996

In reply refer to
Lib. File No. 49-96

Mr. Norman Walton
Defense Technical Information Center
8725 John J. Kingman Rd. STE 0944
Ft. Belvoir, VA 22060-6218

Dear Mr. Walton:

The enclosed copies of the research paper "The Joint
Rescue Task Force: Dedicated CSAR for the Theater CINC," by
Major Timothy R. Minish, USAF are substitute copies for the
ones we had sent to DTIC in April 1996. The paper was
rewritten, and we would like to substitute this revised copy.

Sincerely,

Marie L. Maguire
Administrative Support Assistant

Enclosures

**ABSTRACT OF
THE JOINT RESCUE TASK FORCE:
DEDICATED CSAR CAPABILITY FOR THE JOINT FORCE COMMANDER**

Recovery of distressed US military personnel and civilians has emerged as a major concern to our warfighting CINCs. Historically, we have tended to field ad hoc combat search and rescue (CSAR) organizations - units without clear cut lines of authority resulting in command and control (C²) structures with coordination authority only and operations of a unilateral service nature. Desert Storm was more of the same, the CSAR agency was without operational control of the aircraft flying the mission. Additionally, the CSAR units of the Air Force were not capable of performing the mission. This situation resulted in special operations forces serving in an overland CSAR role. Since Desert Storm, the leadership of the Air Force and Navy have made a conscious effort to recover the CSAR capability of the past. The Air Force and Navy CSAR units of the 1960s to mid 1980s have reemerged with the equipment, personnel, and training necessary to get the job done. However, a problem exists in employing this force. When requested, the theater CINCs will receive the same ad hoc organization of the past -- the units will be capable but the doctrine will be that of past times. This paper proposes a solution that will ensure an effective CSAR capability for the CINCs. The development of a Joint Rescue Task Force (not unlike the Joint Special Operations Task Force) will provide the JFC with a stand alone CSAR force capable of operations independent of parent services, while streamlining and simplifying C², and ensuring unity of command within the CSAR community.

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
ABSTRACT.....	ii
LIST OF ILLUSTRATIONS.....	iv
I INTRODUCTION.....	1
II DESERT STORM: A CSAR CASE STUDY.....	3
III THE JFC AND CSAR TODAY.....	6
IV RECOMMENDATION: THE JOINT RESCUE TASK FORCE.....	10
V CONCLUSION.....	14
ENDNOTES.....	15
BIBLIOGRAPHY.....	17

LIST OF ILLUSTRATIONS

Figure 1	Desert Storm CSAR C² Architecture.....	4
Figure 2	Typical CSAR C² Architecture.....	8
Figure 3	Proposed Operational CSAR C² Architecture.....	12
Figure 4	Proposed Peacetime CSAR C² Architecture.....	14

INTRODUCTION

Prisoners of war (POWs) and hostages have proven to be very effective weapons a nation can use as leverage in the conduct of warfare and negotiations. Historically, the Athenian victory at Pylos and the resultant capture of a number of the upper crust of the Spartan society induced an unexpected offer. The Spartans, though clearly in command of the war until this point, sued for peace. Centuries later, American society also places great emphasis on the recovery of missing personnel in the time of war. Visions of American POWs during the Vietnam War, Desert Storm, and Provide Hope, had a major impact on a recognized center of gravity -- the civilian populace of the United States. As it was during the Peloponessian Wars and as it is now, POWs and hostages can be a considerable liability in the conduct of war going so far as to effect overall policy. The use of human shields can influence our targeting, as was the case in the Gulf War and Bosnia-Herzegovina, and serve as a public relations nightmare for our commanders. Use of special operations to recover those already in the hands of our adversaries are extremely risky at best, as evidenced by the Son Tay Raid and the attempted recovery of Americans held hostage in Iran. Simply put, we have to get to our personnel in need before our adversaries do. Getting to our people first requires that we employ our existing combat search and rescue (CSAR) capability more effectively than our doctrine allows at the current time.

CSAR has a relatively short history characterized lately by a lack of preparedness at the onset of hostilities. While in Korea, established Air Force and Navy CSAR units were deployed at the start of hostilities, the Vietnam conflict would see the core of the US overland

CSAR forces (the USAF Air Rescue Service or ARS) unprepared to execute a rescue in the face of hostile forces. "The Air Rescue Service planners had not planned for a wartime situation."¹ The threat was increased exponentially with the advent of hand held infrared surface-to-air missiles (SAMs), integrated air defense systems (including early warning radar, integrated anti-aircraft artillery, and radar guided SAMs). Our overland CSAR force based on a peacetime mission was inadequate. Initially during the Vietnam War, an ad hoc rescue organization was developed utilizing assets of the Army, Marine Corps, and the South Vietnamese Air Force; however, these assets were not always available and were subject to recall at their commander's discretion.² "It took nearly 5 years of combat experience to turn an ad hoc grouping into a professional combat rescue service, a luxury we could not afford then and certainly not in future operations."³

Neglect between conflicts decimated our dedicated rescue capability, most noticeably between the Vietnam and Desert Storm conflicts when the Air Force and Navy cut CSAR forces until they existed in name only. During Desert Storm, rescue personnel sat on the sidelines while Special Operations Forces (SOF) from the Army and Air Force performed the overland CSAR mission. This situation exists today in the Balkans with SOF and a USMC Marine Expeditionary Unit (Special, Operations-Capable) or MEU(SOC) playing the primary overland CSAR role (i.e., the attempted rescue of two French airmen and the O'Grady rescue).⁴ Forces other than our primary CSAR forces are performing the mission for the theater CINCs despite a resurgence in the CSAR organizations. A renewed interest in CSAR capability has resulted in dedicated Air Force and Navy rescue squadrons that are more than capable of performing the mission. However, the key to developing an effective CSAR

capability is going one step further in developing a functional Task Force. Development of a Joint Rescue Task Force, fully integrated into the theater CINC's command and control C² architecture, with operational control (OPCON) of assigned forces would serve to resolve this problem.

II

DESERT STORM: A CSAR CASE STUDY

During Desert Storm, low fighter attrition rates resulted in few rescue opportunities. Of 64 downed aircrew, only 35 were deemed "candidates" for rescue attempts due to elements such as survivor location and requirements for voice contact and authentication.⁵ In the high threat environment searching was not an option, exact location and authenticity had to be determined up front. Only 7 aircrewmen were the subjects of rescue attempts, while only three of the attempts were successful.⁶

Like previous conflicts, the US military's ability to execute overland CSAR operations was severely lacking at the onset of Desert Storm. August 1990 saw Air Force CSAR forces limited to 2 deployable active duty squadrons (one of which was newly stood up and the other flying outdated HH-3E aircraft), while the Navy's dedicated CSAR force was in the Reserves. Navy active duty squadrons had critical additional missions of anti-submarine warfare (ASW) and special warfare, in addition to CSAR. The Air Force and Navy were in the process of upgrading aircraft and training personnel; however, these efforts were too little, too late. Desert Storm, like Just Cause less than a year earlier, were "come as you are conflicts" and US military dedicated CSAR units had little to offer other than staff organizations and

squadrons in aircraft transition that were not adequately trained. As in the early Vietnam years, the CSAR infrastructure for Desert Storm would be formed on the run.

Central Command's USAF Component Commander (CENTAF), in addition to JFACC, was designated the CSAR coordinator by USCINCCENT. It must be emphasized that CENTAF's role was that of a coordinator.⁷ While the JFACC had tactical control (TACON) of all aircraft sorties (Figure 1), he did not command those assets performing the CSAR mission. Another component commander, SOCCENT, controlled the vast majority

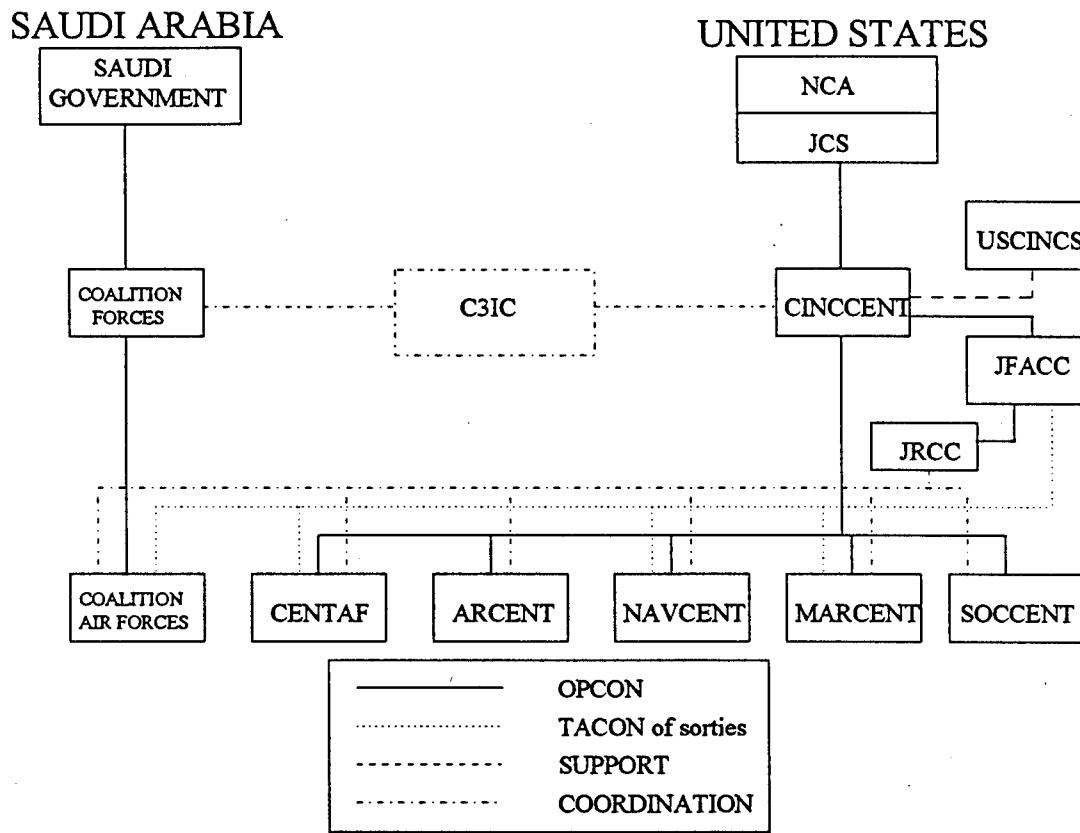


Figure 1
Desert Storm CSAR C² Architecture

of the airframes that would provide overland CSAR. Because SOF aircraft were best suited to conduct long-range personnel recovery missions, the SOCCENT commander was assigned

the rescue mission and SOF provided 24 - hour, on-call CSAR for Coalition aircrews.⁸ "In addition to Iraq and Kuwait, SOCCENT's CSAR area extended 12 miles into the Arabian Gulf. The Navy was responsible for CSAR beyond 12 miles in the Gulf and Red Sea."⁹

The nature of Desert Storm C² had negative effects on CSAR operations. The ad hoc overall theater air C² architecture, combined with outdated CSAR doctrine, rendered the efforts of the Joint Rescue Coordination Center (JRCC -- the forerunner of today's Joint Search and Rescue Center) ineffective.

"Command and control as exercised by CENTCOM during the Gulf War was an amalgam of emerging procedures and doctrine and ad hoc arrangements built on the fly. The major changes from previous conflicts were the establishment of a single air control or coordinating authority (the Joint Force Air Component Commander or JFACC), a single master attack plan disseminated in a single Air Tasking Order (ATO), and the crafting of a tight network of integrated procedures and nets that tied system components together. There were important unresolved issues in command and control."¹⁰

Those performing the CSAR mission (SOF) had difficulties integrating with the overall C². The JFACC staff was openly critical of the JFACC interface with SOCCENT and looked at the separateness of the command as an artificiality that got in the way of effective direction much in the same way of the Air Force - Marine relationship.¹¹ CSAR/SOF integration with the conventional forces C² on the battlefield was tenuous at best. The lack of an overall CSAR C² infrastructure resulted in one rescue (Corvette 02) taking 72 hours to launch due to serious complications ranging from obtaining country clearances (from Syria) to receiving basic intelligence about the shootdown.¹²

The ARS contribution to the Desert Storm effort was limited to a staffed JRCC, augmentation of SOF pararescuemen, and aircrew augmentation of an Air Force Reserve SOF helicopter squadron.¹³ While the ARS operators performed well, the JRCC found itself duplicating the work of the Air Force Special Operations Center (AFSOC) which performed

CSAR C². SOCCENT was the commander of all SOF forces (Navy, Air Force, and Army SOF assets fulfilling the CSAR role) and in that capacity his staff coordinated all overland rescue efforts. SOCCENT's primary mission was that of special operations and CSAR served to divert SOF capability.¹⁴ SOF forces stood CSAR alert instead of preparing for special missions. Six (of eight) MH-53Js stood 24-hour CSAR alert in Saudi Arabia the first two weeks of the war and at least four were on alert thereafter.

Essentially there was not an overall dedicated CSAR commander. There was a coordinator, but not a "commander." While each service was required to provide it's own internal CSAR capability (historically, not a high priority among the services), there was not an established overarching CSAR command agency in theater that networked all elements of the CSAR community. All C² and operational tasks for overland CSAR were the responsibility of the special operations component commander who was not structured then or now to perform the mission.

III

THE JFC AND CSAR TODAY

Currently, each CINC is responsible for the recovery of distressed personnel in his area of operations.¹⁵ In turn, the JFC delegates responsibility to each component commander for recovery of his forces in need within that commander's capability. This requires each commander to establish an internal capability to police his own forces and to develop an internal and external mechanism to coordinate rescue operations.¹⁶ While many problems have been identified and much work already done to rectify those problems that existed during Desert Storm, in reality little has changed. Doctrine remains essentially the same. Each

service component remains responsible for providing CSAR assets and each service retains command of these assets. Current doctrine does not dictate a single command of joint CSAR forces. As in the past, the JSRC (formerly the JRCC) has coordination authority only.

Joint Publication 3-50.2 states: Each service component commander normally exercises control of assigned CSAR forces through a component SAR controller. Additionally, he is to provide mutual support to CSAR operations of other services to the greatest extent possible, as directed by the JFC, and prepare wartime CSAR plans as annexes to emergency orders. The component SAR controller is the designated representative and is responsible, in the name of the component commander, for the control of the components forces committed to joint CSAR operations. Each service component's SAR controller reviews the components anticipated operations and submits through the component commander a daily CSAR plan to the JSRC. The JSRC, in turn, produces a daily CSAR employment plan outlining missions in progress, precautionary CSAR, alert requirements for dedicated forces, shortfalls, and joint taskings. The CSAR employment plan can be considered coordination only in light of a command structure where the JSRC is only a coordinating agency. As indicated in Figure 2, tasking of CSAR units may be accomplished by the individual service component only.

In spite of doctrine that does little itself to enhance the JFC's CSAR capability, the services have increased the CINC's potential for successful CSAR operations through joint efforts such as the CSAR Process Improvement Team and development of joint manuals. Additionally, the Air Force and Navy have increased their dedicated CSAR forces. The Air Force fields has 6 active duty rescue squadrons and 6 reserve component squadrons.¹⁷

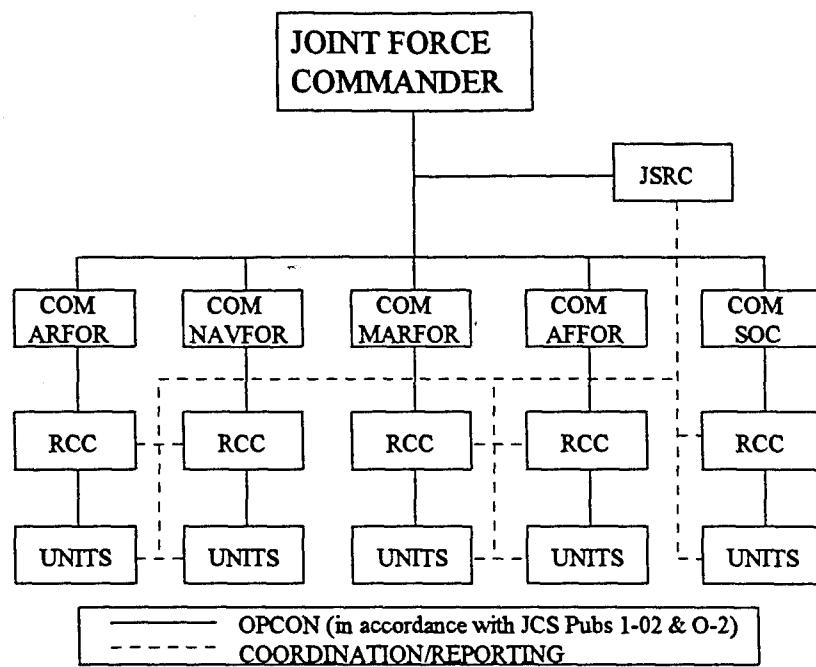


Figure 2
Typical CSAR C² Architecture

The Navy fields 11 active duty squadrons (multirole -- ASW, special warfare, and CSAR) and 2 reserve squadrons (special warfare and CSAR).¹⁸ This resurgence in CSAR capability is marked by upgraded equipment (primarily very capable H-60 variants), development of effective training schoolhouses (the Air Force's 512TH Special Operations Squadron at Kirtland AFB, NM and the Navy's HS-10 at North Island NAS, CA), regularly occurring joint training exercises, while the Joint Survivor Escape and Evasion Agency represents interests of the rescue community in Washington. All services have developed a rescue capability of varying degrees.

While the Air Force and Navy are fielding organizations with the primary mission of CSAR, the other services currently perform CSAR as a secondary role. As previously mentioned, the Navy forces perform the missions of ASW and Special Warfare, as well as CSAR. The USMC MEU(SOC) performs Tactical Recovery of Aircraft and Personnel

(TRAP) which is secondary to support of the Marine Air to Ground Task Force (MAGTF) operations. The Army, while not recognizing CSAR as a primary Army mission, can readily provide a CSAR capability in light of its large helicopter force structure.¹⁹ Army aircraft primarily support Army maneuver units and do not train in any way for CSAR. SOF by the very nature of its primary mission and well-equipped forces also provides an effective CSAR capability to the detriment of the special operations mission. While all services have developed or maintain some type of inherent CSAR capability, only the Air Force and Navy can provide a dedicated capability that has no ties to another mission.

After accepting the May 1995 Report of the Commission on Roles and Missions of the Armed Forces, the Secretary of Defense designated the Air Force as the executive agent for CSAR.²⁰ In turn, the Chief of Staff of the Air Force selected Air Combat Command (ACC) to perform the duties of the executive agent.²¹ Air Combat Command is now officially responsible for standardizing all military CSAR procedures including mission doctrine, training, equipment, and interservice coordination.

The basis has been laid for an effective CSAR force. Units are in place and there is a joint dialogue. Nevertheless, SOF continues to perform the CSAR mission for real world contingencies in Turkey and the Balkans while Air Combat Command (who fields a helicopter and HC-130 tanker force larger than SOF) has forces deployed only in Kuwait. The preferred organization (with CSAR capability) is USSOCOM. SOF provided CSAR for Just Cause, Desert Storm, Southern Watch, Provide Comfort, Promote Democracy and is currently splitting duties with the Marine Corps in the Balkans. Unlike CSAR organizations, SOF enters the theater as a package under one commander: the theater CINCSOC. The theater

CINCSOC coordinates and controls all SOF units within theater as opposed to the CSAR agency (JSRC) which has coordination authority only. CSAR units are commanded by their parent service and therefore are more likely to be effected by mission creep or in the case of the Navy performance of alternate missions (i.e., ASW). Whereas SOF has an established command and control structure, the CSAR C² structure will be ad hoc with C⁴I subject to parent service desires regardless of the other component services' C⁴I arrangements.

Current CSAR doctrine violates the principle of war of Unity of Command.

Doctrinally, in wartime there is a CSAR coordinator and several commanders aligned by service component whereas the JSOTF has one commander. Despite having the force structure to be successful, US military CSAR forces will likely remain ineffective until it embraces the principle of Unity of Command and deploys in much the same fashion as SOF (i.e., all assets working for one commander). The development of a Joint Rescue Task Force (JRTF) as a standing component on the JFC's staff would provide effective rescue and recovery across the spectrum of conflict and most importantly provide unity of command within the deployed CSAR community.

IV

RECOMMENDATION: THE JOINT RESCUE TASK FORCE-

Had the SOF and CSAR missions grown to the levels anticipated during planning, the ad hoc CSAR system of Desert Storm would not have been able to cope with requirements resulting in reduced capacity and unfilled requirements. In August 1990 there was not an effective, dedicated CSAR capability in existence and stand-in forces (SOF) had to do. However, today a basic CSAR tactical capability (equipment, personnel, training, and basis for

C^2) possessing the potential to meet the JFC's requirements is fielded. Fulfilling the JFC's requirements involves fielding a capability that can function effectively as an organic part of the CINC's force structure and C^2 architecture. Additionally, this rescue force must be familiar with the area of operation and be capable of rapid deployment.

A functional CSAR Joint Task Force with full time representation on the JFC's staff (a Joint Force Rescue Coordinator) would serve to fulfill all the JFC's requirements. Of all capabilities required by the CINC, CSAR is one of the few that will be required 100 percent of the time (i.e., throughout the spectrum of conflict). CSAR should be represented on the CINC's peacetime as well as wartime staff, not necessarily as a component but as an on-call functional task force with minimal peacetime manning as is done today. Arguments against a functional task force include each service simply providing CSAR as current doctrine dictates. However, except for the Air Force, other DOD assets have critical wartime primary missions (i.e., support of MAGTF and SOF operations) other than CSAR and would not be available at all times. In a future conflict, tasking of a USMC TRAP package may meet with resistance when the MAGTF is involved in combat operations. Simply put Marine assets support MAGTF operations first. Like the Marine Corps, Army assets support Army units engaged in combat first. Active duty Navy squadrons have CSAR as one of three primary missions. Additionally, Navy squadrons are only required to maintain 3 CSAR trained aircrews per active duty squadron (the 2 Reserve squadrons are full up CSAR qualified).²² In wartime much of the CSAR capability available in peacetime will be used to accomplish other (primary) missions. To ensure an effective CSAR capability we must selectively allocate to

the CINCs a dedicated CSAR force that will not be pulled to perform other missions during wartime.

Just as there is a JFACC or JFLCC, a Joint Force Rescue Commander/Coordinator and a Joint Rescue Task Force has a place in any CINCdom. The development of the CINC's Joint Rescue Task Force from preexisting Air Force CSAR and Navy HCS/HS squadrons and standing Joint Search and Rescue Centers (JSRC) would fulfill the CINC's requirement for a dedicated and robust CSAR capability interoperable with all assigned forces. The JRTF would fit into the CINC's command and control structure much in the same fashion as SOF

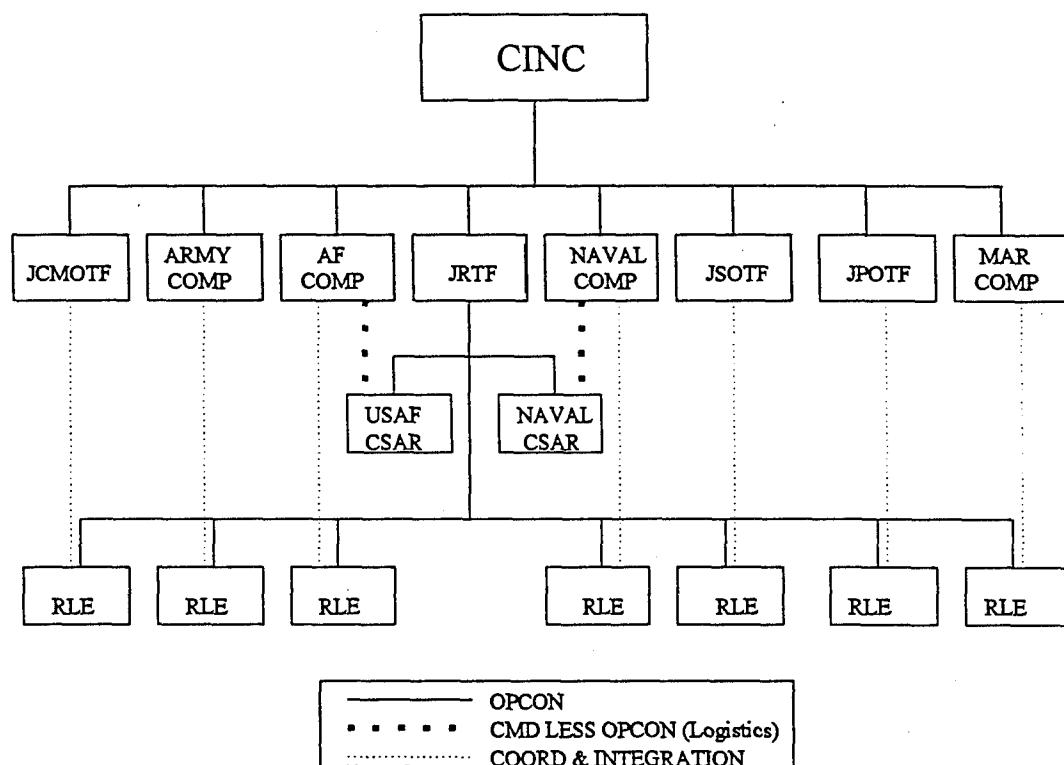


Figure 3
Proposed Operational CSAR C² Architecture

(see Figure 3.) Currently, ACC maintains deployable JSRC C² packages (elements of deployable air operations centers) and trained SAR controllers that would readily serve as a JRTF headquarter(s).²³ The current JSRC C² packages were developed with interoperable communications ensuring the JRTF could operate jointly. Once deployed the JRTF would coordinate via Rescue Liaison Elements (RLE) deployed to each task force and component commander. Special Operations dependence on special operations liaison elements (SOLE) during the Gulf War was met with much success.

The benefits to the JFC of the JRTF during combat operations, are readily evident in that these forces would provide a quick reaction recovery force which would not have to receive taskings via several layers of command and control. Additionally, individual component operated rescue coordination centers would be replaced by RLEs who would work for the JRTF/CC. The component commander's staff workload would be reduced and rescue coordination support would be received directly from those schooled in rescue procedures, CSAR C², and rescue capabilities - the JRTF personnel comprising the RLEs.

Combat operations are the obvious use for the JRTF. However, the ability to tailor the task force and use the capability worldwide due to flexible weapon systems (i.e., air refuelable and ship deployable) would enable the JFC (or theater CINC) to respond to noncombat operations (see Figure 4) with short notice rescue and military operations other than war. The JRTF would be a robust search and rescue package also available to any Ambassador requiring support.

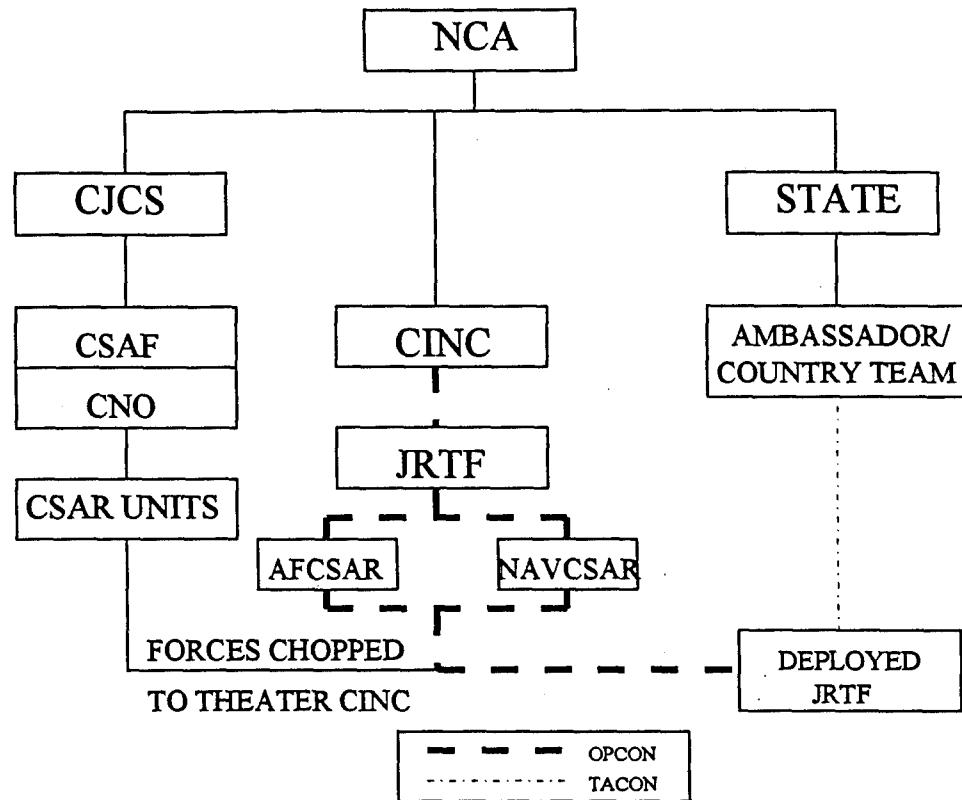


Figure 4
Proposed Peacetime CSAR C² Architecture

V

CONCLUSION

The services have made giant strides in attempting to provide the theater CINC with an effective CSAR capability. There are three phases to solving the CSAR problem with the first being the leadership admitting that there are problems and committing to resolving them. The ongoing second phase involves obtaining the equipment, people, and training appropriate for the mission. The last phase requires the integration of the currently established CSAR capability into the JFC's C² structure.

For practical purposes, the first 2 phases have been completed. Historically, the leadership has recognized that in WW II, Korea, and Vietnam we maintained an adequate CSAR capability in spite of the neglect between conflicts depleting the forces. With the nature of today's conflicts generally being quick and to the point, we must be prepared for come-as-you-are conflicts. Establishing a CSAR capability on an as required basis will simply not work. Unfortunately, it took an embarrassment in the form of Desert Storm to convince the leadership that CSAR forces must be established and maintained like any other capability within DOD. The second phase is well underway with a credible force structure in place within the Air Force and Navy. New equipment has been fielded and is forward deployed by both the Navy and Air Force and a joint dialogue addressing training, exercising, tactics, and coordination is ongoing.

The final phase, ensuring a credible CSAR capability for the CINCs, is the most critical. Without a stand alone force, unhampered by the doctrine of the most recent past, all effort would likely result in what CINCs have depended on in the past -- CSAR (to include C²) performed by SOF. However, the Joint Rescue Task Force concept would provide the CINC with a dedicated CSAR capability, with it's own command and control, for employment as a task force within a major operation or as a tailored package responding to a noncombat contingency. The essential pieces exist; they need only be put in the proper places.

ENDNOTES

¹Earl H. Tilford, Search and Rescue in Southeast Asia 1961-1975 (Washington, U.S. Government Press: 1980), 37.

²IBID., 45.

³Dave Meggett, "Organizing For Search And Rescue," Airpower Journal, Summer 1995, 84-85.

⁴Christopher J. Gunther, "Fortune Favors the Bold," Armed Forces Journal International, December 1995, 20.

⁵Joseph E. Falzone, Combat Search and Rescue - CSEL Enhancements for Winning Air Campaigns (Maxwell AFB, Al: Air University Press, 1994), 55.

⁶U.S. Department of Defense, Conduct of the Persian Gulf War - Final Report to Congress (Washington, U.S. Government Press, 1992), J-16.

⁷RAND, A League of Airmen - U.S. Air Power in the Gulf War, (Santa Monica, Ca: 1994), 115.

⁸Conduct of the Persian Gulf War, J-16.

⁹IBID.

¹⁰A League of Airmen.

¹¹IBID.

¹²Benjamin F. Schemmer, "No US Air Force Combat Rescue Aircraft In The Gulf; It Took 72 Hours To Launch One Rescue," Armed Forces Journal International, July 1991, 37.

¹³IBID., 38.

¹⁴Robert A. Stenavik, "Increasing Air Force Rescue Capabilities Without More Money," Unpublished Research Paper, U.S. Naval War College, Newport RI: 22 June 1992, 7.

¹⁵Joint Publication 3-50.2, Doctrine for Joint Combat Search and Rescue (Washington: 1994), I-1.

¹⁶IBID., I-5.

¹⁷Telephone conversation with Edward Smolinski, Captain, USAF, Chief of Current Operations, Air Combat Command Rescue Coordination Center, Langley AFB, Va: 2 February 1996.

¹⁸Interview with Timothy R. McMahon, Lt Cmdr, USN, Student, Naval War College, College of Naval Command and Staff, Newport, RI: 22 December 1996

¹⁹Virgil L. Packet, "Combat Search and Rescue: Whose Responsibility?" US Army Aviation Digest, November/December 1992, 20.

²⁰Telephone conversation with Smolinski.

²¹IBID.

²²Joint Publication 3-50.2, B-9.

²³Telephone conversation with Smolinski.

BIBLIOGRAPHY

Falzone, Joesph E. Combat Search and Rescue - CSEL Enhancements For Winning Air Campaigns. Maxwell AFB, Al: Air University Press, 1994.

Gunther, Christopher J. "Fortune Favors the Bold." Armed Forces Journal International, December 1995, 20-23.

Interview with Timothy R. McMahon, Lt Cmdr, USN, Student Naval War College, College of Naval Command and Staff, Newport, RI: 22 December 1996.

Joint Publication 3-50.2. Doctrine For Joint Combat Search and Rescue. Washington, DC: 12 July 1994.

McCartin, Micheal J. "Crossing the Beach.....and Bringing 'Em Back." U.S. Naval Institute Proceeding, February 1988.

Megget, David. "Organizing For Search and Rescue." Airpower Journal, Summer 1995, 82-88.

Mullarky, J.W. "Combat Search and Rescue: The CINC's Dilemma," Unpublished Research Paper, U.S. Army War College, Carlisle Barracks, Pa: 1990.

U.S. Department of Defense. Conduct of the Persian Gulf War - Final Report to Congress. Washington, DC: 1992.

Packet, Virgil L. "Combat Search and Rescue: Whose Responsibility?" US Army Aviation Digest, November/December 1992, 18-21.

RAND. A League of Airmen - U.S. Air Power in the Gulf War. Santa Monica, Ca: 1994.

Renuart, Victor, E. and Bryan D. Brown. "Combat Search And Rescue: A Search For Tomorrow." Unpublished Research Paper, U.S. Army War College, Carlisle Barracks, Pa: 1992.

Schemmer, Benjamin F. "No USAF Combat Rescue Aircraft In The Gulf; It Took 72 Hours To Launch One Rescue." Armed Forces Journal International, July 1991, 37-38.

Sparks, Micheal L. "One Missle Away From Disaster." Armed Forces Journal International, December 1995, 18-19.

Stenevik, Robert A. "Increasing Air Force Rescue Capabilities Without More Money." Unpublished Research Paper, U.S. Naval War College, Newport RI: 22 June 1992.

Telephone conversation with John D. Nelson, Major, USAF, Training Officer, Air Combat Command/Director of Operations Training Office (DOTO): 2 February 1996

Telephone conversation with Edward Smolinski, Captain, USAF, Chief of Current Operations, Air Combat Command Rescue Coordination Center: 2 February 1996.

Thompson, Robert. "Combat Rescue Story." Unpublished News Article, ACC/NS, Langley AFB, Va: November 1995.

Tilford, Earl H. Search and Rescue in Southeast Asia 1961 - 1975. Washington, DC: U.S. Government Printing Office, 1980.

Watkins, John E. "Overland Combat Search And Rescue: A Real Fix To An Old Problem." Unpublished Research Paper, U.S. Naval War College, Newport, RI: 16 February 1991.